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The Relationship between Febrile Convulsion and Temporal Lobe Epilepsy : Is Febrile Convulsion a Preferential Association with Temporal Lobe Epilepsy ?

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Background : Although a history of febrile convulsion (FC) is common in epilepsy patients, the preferential association of febrile convulsion with temporal lobe epilepsy (TLE) is not clear. **Methods** : We obtained the FC data from “Paik and Bongsang hospital “ epilepsy clinic. We classified epilepsy syndromes into generalized epilepsy (GE), temporal lobe epilepsy (TLE), extratemporal epilepsy (ETLE), unclassified partial and undetermined epilepsy by standardized criteria. The incidence of antecedent FC was evaluated in relation to the epilepsy classifications. We calculated kappa values for inter and intra observer reliability for the classifications of epilepsy syndromes. **Results** : The agreement of epilepsy classifications were reliable (intra-observer kappa value=0.78, inter-observer kappa value=0.77). Thirteen percent of the studied patients (72/537) had a history of FC and 38% of FC (27/72) were complex types of FC. TLE was more likely to be preceded by FC 25% (42/166) than ETLE 6% (12/189), $p<0.05$ or GE 13% (12/93), $p<0.05$ and 85% of complex FC (23/27) preceded TLE. GE however, was more likely to have non-complex FC 100% (12/12) than partial epilepsy 55% (32/58), $p<0.05$. **Conclusions** : We therefore conclude and agree that FC should be preferentially associated with TLE.
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Key Words : Febrile convulsion, Temporal lobe epilepsy, Complex febrile convulsion

(febrile convulsion) 5 가 가
(partial epilepsy)
(generalized epilepsy) 가
가
2 ~ 4% .¹
2 ~ 7% (temporal lobe epilepsy)
Falconer ⁸ (prolonged
febrile convulsion)
(
6-11
가 35 ~ 50%
12-17
가
500 가
Abou-

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MRI가		possible	
가		MRI가	
1)		definite	
가? 2)		3 Hz spike and waves generalized spike and waves	
16		possible	
5		EEG 3 Hz spike and waves generalized spike and waves가	
(complex		Kappa value intraobserver reliability	
febrile seizure) 1) 15		interobserver reliability	
3) 24		definite	
2		Chi-square test, Student t-test	
가		16	
(semiology), (elec-		가 가	
troencephalography; EEG)		537 537 438 , 99	
(magnetic resonance image; MRI)		(undetermined	
epilepsy)		Kappa value interobserver reliability	
(idiopathic generalized epilepsy, IGE)		intraobserver reliability	
(cryptogenic, symptomatic		Kappa	
generalized epilepsy)		value가 0.77, 0.78 definite	
(extratemporal epilepsy, ETLE),		54%,	
(unclassified partial epilepay)		61%, 50%	
(ictal EEG)		50%	
, MRI		1.	
definite		20.9±13.3 , 9.4±8.2	
possible		25.3±19.4 , 7.2±5.9	
가		가	
definite 1)		21.8±14.8	
2)		8.9±7.8 17%(93/	
(interictal EEG)		537), 78%(417/537),	
3)		5%(27/537)	
MRI		92%(86/93)가	
4) 2)+3)		31%(166/537),	
(complex partial seizure)		35%(189/537), 12%(62/537)	
MRI 가		definite	
가		Possible	
가		가	

2. 13.2%(133/1005)
Berg¹⁹ 13.9%
13%(72/537)
38%(27/72)가
13%(12/93)
14%(58/417)
(26/417)
가
가
가
가 25%(42/166)
6%(12/189)
(12/93)
(Table 1).
3.
27 20 15 가 TLE
4 Lee⁷ 362
15 가 2 4%가
24 24 2 가 1 3가 Rocca²⁰⁻²²
가 가 19%,
15 18%, 21% Camfield
27 23 23
(definite 19) 1 15%
3
가 (2
, 1).
27 24 MRI 75%(18/24) 가 Berg¹⁹
(visual analysis) (hippocampal
sclerosis)가
537
72 13% Abou-Khalil¹⁸

Table 1. The incidence of febrile convulsion in generalized epilepsy, TLE, ETLE, unclassified partial and undetermined epilepsy

Epilepsy classification	Number	FC(%)	Complex FC	F.Hx of FC
Generalized epilepsy	93	12(13)	0	2
TLE*	166	42(25)	23	1
ETLE	189	12(6)	1	0
Unclassified partial epilepsy	62	4(6)	2	1
Undetermined epilepsy	27	2(7)	1	1
Total	537	72(13)	27	5

*p<0.05, between TLE and ETLE, generalized epilepsy

p>0.05, between TLE and generalized epilepsy

p>0.05, between TLE and partial epilepsy

*p<0.05, complex FC between generalized and partial epilepsy

TLE ; Temporal lobe epilepsy, ETLE ; Extratemporal lobe epilepsy, FC ; febrile convulsion,

F.Hx of FC ; family history of febrile convulsion

interobserver reliability intraobserver
reliability가 0.77 0.78
가

가 14% 13%

가

25%(42/166),
6%, 13% Abou-Khalil¹⁸
25.2%, 5.6%,
11%

가

가

55%(23/42) Abou-
Khalil¹⁸ 80.8%(63/78)

15
Abou-Khalil¹⁸
75% 15

가

24

MRI 18 가

가

10,13,16,24

가

가

2 2 (motor
manifestation) 가

가

가 MRI

가 Kappa value

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